

Title (en)

USER INITIATED BREAK-AWAY CLUTCHING OF A SURGICAL MOUNTING PLATFORM

Title (de)

BENUTZEREINGELEITETE ENTRIEGELBARE KUPPLUNG EINER CHIRURGISCHEN MONTAGEBÜHNE

Title (fr)

ACCOUPLEMENT À LIBÉRATION INITIÉE PAR L'UTILISATEUR D'UNE PLATEFORME DE MONTAGE CHIRURGICALE

Publication

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Application

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Priority

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Abstract (en)

[origin: US2014052154A1] Robotic and/or surgical devices, systems, and methods include kinematic linkage structures and associated control systems configured to facilitate preparation of the system for use. One or more kinematic linkage sub-systems may include joints that are actively driven, passive, or a mix of both. A set-up mode employs an intuitive user interface in which one or more joints are initially held static by a brake or joint drive system. The user may articulate the joint(s) by manually pushing against the linkage with a force, torque, or the like that exceeds a manual articulation threshold. Articulation of the moving joints is facilitated by modifying the signals transmitted to the brake or drive system. The system may sense completion of the reconfiguration from a velocity of the joint(s) falling below a threshold, optionally for a desired dwell time. The system may provide a detent-like manual articulation that is not limited to mechanically pre-defined detent joint configurations. Embodiments of the invention provide, and can be particularly well-suited for manual movement of a platform supporting a plurality of surgical manipulators in a robotic surgical system or the like without having to add additional input devices.

IPC 8 full level

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